

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | |
|--|-------------------------|
| Applicant(s): MAMITSU et al. | Atty. Dkt.: 01-103-CON5 |
| Serial No.: Unknown | Group Art Unit: |
| Filed: Concurrently herewith | Examiner: |
| Title: SEMICONDUCTOR DEVICE HAVING RADIATION STRUCTURE | |

Commissioner for Patents
Arlington, VA 22202

Date: November 4, 2003

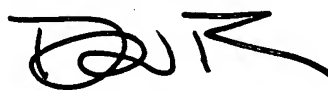
INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56, the reference(s) listed on the attached Form PTO-1449 is/are being submitted for consideration by the Examiner without any admission that it/they constitute(s) statutory prior art, or without any admission that it/they contain(s) subject matter that anticipates the invention or renders the invention obvious to a person of ordinary skill in the art.

The Examiner is requested to initial the attached PTO Form-1449 and to return a copy of same to the undersigned attorney as proof that the listed reference(s) has/have been considered and made of record.

Respectfully-submitted,



David G. Posz
Reg. No. 37,701

Posz & Bethards, PLC
11250 Roger Bacon Drive, Suite 10
Reston, VA 20190
(703)707-9110 (phone)
Customer No. 23400

| | | | |
|---------------|---------------|----------------|----------|
| FORM PTO-1449 | ATTY. DKT NO. | 1-103-CONS | SER. NO. |
| | APPLICANT | MAMITSU et al. | |
| | FILING DATE | Nov. 4, 2003 | GROUP |

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB CLASS |
|---------------------|--|--------------------|---------------|----------------|-------|-----------|
| | | 5,708,299 | Jan. 13, 1998 | Teramae et al | | |
| | | 6,072,240 | June 6, 2000 | Kimura et al | | |
| | | 5,248,853 | Sep. 28, 1993 | Ishikawa et al | | |
| | | 5,801,445 | Sep. 1, 1998 | Ishihara et al | | |
| | | 5,229,646 | Jul. 20, 1993 | Tsumura | | |
| | | 4,558,345 | Dec. 10, 1985 | Dwyer et al | | |
| | | 4,546,374 | Oct. 8, 1985 | Olsen et al | | |
| | | 4,984,061 | Jan. 8, 1991 | Matsumoto | | |
| | | 5,481,137 | Jan 2, 1996 | Harada et al. | | |
| | | 4,827,082 | May 2, 1989 | Horiuchi et al | | |
| | | 4,538,170 | Aug. 27, 1985 | Yerman | | |

FOREIGN PATENT DOCUMENTS

TRANSLATION

| | | DOCUMENT NUMBER | DATE | COUNTRY | NAME | CLASS | SUB CLASS | YES | NO |
|--|--|--------------------|----------|---------|------|-------|--------------|-----|----|
| | | EP0660396 | 12/24/93 | Europe | | | | | |
| | | EP0450980 | 4/05/91 | Europe | | | | | |
| | | 6-291223 | 10/94 | JAPAN | | | | | |
| | | 3-20067 | 01/91 | JAPAN | | | | | |
| | | 2146174 | 11/85 | GB | | | | | |

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

| | | |
|----------|--|--|
| | | Takamura, "Electronic Technology", pp. 56-59 (1999-5). |
| | | |
| | | Johnson et al., "Silicon Precipitate Nodule-Induced Failures of MOSFETS", ISTFA '91 (Nov. 11-15, 1991), pp. 161-165. |
| | | |
| | | |
| EXAMINER | | DATE CONSIDERED |

| | | | |
|---------------|---------------|----------------|----------|
| FORM PTO-1449 | ATTY. DKT NO. | 1-103-CON5 | SER. NO. |
| | APPLICANT | MAMITSU et al. | |
| | FILING DATE | Nov. 04, 2003 | GROUP |

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB CLASS |
|---------------------|--|--------------------|----------------------|-----------------|-------|-----------|
| | | 4,646,129 | Feb. 24, 1987 | Yerman et al | | |
| | | 4,141,030 | Feb. 20, 1979 | Eisele et al | | |
| | | 6,448,645 | Sep. 10, 2002 | Kimura | | |
| | | 6,538,308 | Mar. 25, 2003 | Nakase | | |
| | | 6,380,622 | Apr. 30, 2002 | Hirai | | |
| | | 09/675,209 | Filed Sept. 29, 2000 | Suzuki | | |
| | | 5,221,851 | Jun. 22, 1993 | Gobrecht et al. | | |

FOREIGN PATENT DOCUMENTS

TRANSLATION

| | | DOCUMENT NUMBER | DATE | COUNTRY | NAME | CLASS | SUB CLASS | YES | NO |
|--|--|--------------------|-------|---------|------|-------|--------------|-----|----|
| | | 4-249353 | 9/92 | JAPAN | | | | | |
| | | 11-260979 | 09/99 | JAPAN | | | | | |
| | | 4-27145 | 01/92 | JAPAN | | | | | |
| | | 9-148492 | 06/97 | JAPAN | | | | | |
| | | 4-12555 | 01/92 | JAPAN | | | | | |
| | | 4-103150 | 04/92 | JAPAN | | | | | |
| | | 60-137042 | 07/85 | JAPAN | | | | | |
| | | 5-109919 | 04/93 | JAPAN | | | | | |
| | | 61-166051 | 07/86 | JAPAN | | | | | |
| | | 2-117157 | 05/90 | JAPAN | | | | | |
| | | 63-102326 | 05/88 | JAPAN | | | | | |

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

| | | |
|----------|-----------------|--|
| | | |
| EXAMINER | DATE CONSIDERED | |

| | | | |
|---------------|---------------|----------------|----------|
| FORM PTO-1449 | ATTY. DKT NO. | 1-103-CON5 | SER. NO. |
| | APPLICANT | MAMITSU et al. | |
| | FILING DATE | Nov. 04, 2003 | GROUP |

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB CLASS |
|---------------------|--|--------------------|---------------|---------------|-------|-----------|
| | | 5,990,550 | Nov. 23, 1999 | Umezawa | | |
| | | 5,608,610 | Mar. 4, 1997 | Brzezinski | | |
| | | 5,396,403 | Mar. 7, 1995 | Patel | | |
| | | 5,293,301 | Mar. 8, 1994 | Tanaka et al. | | |
| | | 5,641,997 | June 24, 1997 | Ohta et al. | | |
| | | 5,789,820 | Aug. 4, 1998 | Yamashita | | |

FOREIGN PATENT DOCUMENTS

TRANSLATION

| | | DOCUMENT NUMBER | DATE | COUNTRY | NAME | CLASS | SUB CLASS | YES | NO |
|--|--|--------------------|-------|---------|------|-------|--------------|-----|----|
| | | 60-235430 | 11/85 | JAPAN | | | | | |
| | | 07-240432 | 9/95 | JAPAN | | | | | |
| | | 8-45874 | 2/96 | JAPAN | | | | | |
| | | 60-95947 | 05/85 | JAPAN | | | | | |
| | | 61-265849 | 11/86 | JAPAN | | | | | |
| | | 62-141751 | 06/87 | JAPAN | | | | | |
| | | 63-096946 | 04/88 | JAPAN | | | | | |
| | | 62-92349 | 4/87 | JAPAN | | | | | |
| | | 62-287649 | 12/87 | JAPAN | | | | | |
| | | 59-38734 | 09/84 | JAPAN | | | | | |
| | | 01-228138 | 09/89 | JAPAN | | | | | |
| | | 54-40569 | 03/79 | JAPAN | | | | | |
| | | 61-251043 | 11/86 | JAPAN | | | | | |
| | | 54-95183 | 07/79 | JAPAN | | | | | |

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

| | | |
|----------|--|-----------------|
| | | |
| | | |
| EXAMINER | | DATE CONSIDERED |

| | | | |
|---------------|---------------|----------------|----------|
| FORM PTO-1449 | ATTY. DKT NO. | 1-103-CON5 | SER. NO. |
| | APPLICANT | MAMITSU et al. | |
| | FILING DATE | Nov. 04, 2003 | GROUP |

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB CLASS |
|---------------------|--|--------------------|----------------|----------------|-------|-----------|
| | | 2002/0158333 | Oct. 31, 2002 | Teshima | | |
| | | S/N 10/201556 | July 24, 2002 | Hirano et al. | | |
| | | 5726466 | March 10, 1998 | Nishitani | | |
| | | 4,470,063 | Sep. 4, 1984 | Arakawa et al. | | |
| | | 5,708,299 | Jan. 13, 1998 | Teramae et al | | |

FOREIGN PATENT DOCUMENTS

TRANSLATION

| | | DOCUMENT NUMBER | DATE | COUNTRY | NAME | CLASS | SUB CLASS | YES | NO |
|--|--|--------------------|----------|---------|------|-------|--------------|-----|----|
| | | 59-031042 | 02/84 | JAPAN | | | | | |
| | | 07-038013 | 02/95 | JAPAN | | | | | |
| | | 07-273276 | 10/95 | JAPAN | | | | | |
| | | 08-191145 | 07/96 | JAPAN | | | | | |
| | | 2000-91485 | 03/00 | JAPAN | | | | | |
| | | W098/12748 | 3/26/98 | PCT | | | | | |
| | | JP-A-5-283562 * | 10/29/93 | JAPAN | | | | X | |
| | | JP-A-6-349987 * | 12/22/94 | JAPAN | | | | X | |
| | | JP-A-7-45765 * | 2/14/95 | JAPAN | | | | X | |
| | | JP-A-11-186469 * | 7/9/99 | JAPAN | | | | X | |
| | | JP-A-2000-31351 * | 1/28/00 | JAPAN | | | | X | |
| | | JP-A-2001-118961 * | 4/27/01 | JAPAN | | | | X | |

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

| | | |
|----------|--|-----------------|
| | | |
| | | |
| | | |
| EXAMINER | | DATE CONSIDERED |